

1. Use of an amphipathic compound comprising a lipophilic group derived from a sterol linked to a cationic group, for the production of a vaccine composition.
2. ^{Use} Use according to Claim 1, characterized in that the lipophilic group is a cholesterol derivative.
3. ^{Use} Use according to ^{Claim 1} ~~either of the preceding claims~~, characterized in that the cationic group is a quaternary ammonium or an amine which can be protonated.
4. ^{Use} Use according to ^{Claim 1} ~~one of the preceding claims~~, characterized in that the lipophilic group is attached to the cationic group via an ester, ether, amide or carbamoyl link.
5. ^{Use} Use according to ^{Claim 1} ~~one of the preceding claims~~, characterized in that the lipophilic group is separated from the cationic group by a branched or unbranched alkyl chain comprising from 1 to 20 carbon atoms.
6. ^{Use} Use according to ^{Claim 1} ~~one of the preceding claims~~, characterized in that the amphipathic compound is selected from the following compounds:
- cholesteryl-3 β -carboxamidoethylenetrimethyl-ammonium iodide,
 - cholesteryl-3 β -carboxamidoethylenamine,
 - cholesteryl-3 β -oxysuccinamidoethylene-trimethylammonium iodide,

- 3β -[N-(N',N'-dimethylaminoethane)carbamoyl]-
cholesterol,

- 3β -[N-(polyethylenamine)carbamoyl]cholesterol.

7. ^{A use}~~Use~~ of 3β -[N-(N',N'-dimethylaminoethane)-
5 carbamoyl]cholesterol for the production of a vaccine
composition.
8. ^{A use}~~Use~~ according to ^{claim 1}~~one of the preceding claims~~,
characterized in that the amphipathic compound is
combined with a neutral lipid.
- 10 9. ^{A use}~~Use~~ according to Claim 8, characterized in that
the proportion of neutral lipid combined is at least
20%.
10. ^{A use}~~Use~~ according to ^{Claim 8 or 9}~~either of claims 8 and 9~~,
characterized in that the neutral lipid is
15 dioleoylphosphatidylethanolamine (DOPE) or
dioleoylphosphatidylcholine (DOPC).
11. ^{A use}~~Use~~ according to ^{claim 1}~~one of the preceding claims~~,
characterized in that the amphipathic compound is
dispersed in an aqueous environment in the form of
20 liposomes.
12. ^{A use}~~Use~~ of an amphipathic compound comprising a
lipophilic group derived from a sterol linked to a
cationic group, as an adjuvant in the administration of
a vaccine.
- 25 13. ^{A use}~~Use~~ according to Claim 12, characterized in that
the said amphipathic compound is 3β -[N-(N',N'-dimethyl-
aminoethane)carbamoyl]cholesterol.

- 24 - *claim 12 or 13*

14. *Use* ~~Use~~ according to ~~either of Claims 12 and 13,~~
characterized in that the said amphipathic compound is
combined with a neutral lipid.

15. *A vaccine*
~~Vaccine~~ composition comprising at least one
5 antigen, characterized in that it comprises, in
addition, at least one amphipathic compound possessing a
lipophilic group derived from a sterol linked to a
cationic group.

16. *A vaccine*
~~Vaccine~~ composition according to Claim 15,
10 characterized in that the said lipophilic group is a
cholesterol derivative.

17. *A vaccine*
~~Vaccine~~ composition according to *Claim 15 or 16*
~~either of~~
~~Claims 15 and 16,~~ characterized in that the said
amphipathic compound is 3β -[N-(N',N'-dimethyl-
15 aminoethane) carbamoyl] cholesterol.

18. *A vaccine*
~~Vaccine~~ composition according to *Claim 15*
~~one of~~
~~Claims 15 to 17,~~ characterized in that the said
amphipathic compound takes the form of liposomes
including at least one antigen.

19. *A vaccine*
~~Vaccine~~ composition according to *Claim 15*
~~one of~~
~~Claims 15 to 17,~~ characterized in that the said
amphipathic compound is combined with a neutral lipid.

20. *A vaccine*
~~Vaccine~~ composition according to *Claim 15*
~~one of~~
~~Claims 15 to 19,~~ characterized in that it comprises at
25 least one influenza virus antigen.

21. *A method*
~~Method~~ for inducing an immune response in a
mammal, consisting in administering at least one antigen
to the mammal, characterized in that it consists in
administering, in addition, at least one amphipathic

compound comprising a lipophilic group derived from a sterol linked to a polar group.

22. ^{A method}~~Method~~ according to Claim 21, characterized in that the said amphipathic compound is administered at
5 the same time as the antigen.

23. ^{A method}~~Method~~ according to ^{Claim 21 or 22}~~either of Claims 21 and 22~~, characterized in that the antigen is an influenza virus haemagglutinin.

24. ^{A product}~~Product~~ containing at least one antigen and one
10 amphipathic compound comprising a lipophilic group derived from a sterol linked to a cationic group, as a combination product for use simultaneously, separately or staggered over time in vaccination.

Not
B2

Not
C1